Applicant : Gupta et al. Serial No.: 10/658,722 Filed : September 9, 2003

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) An organic light emitting diode (OLED) device with at least one pixel, comprising:

a lower electrode layer;

a photo-resist layer, said photo-resist layer fabricated upon said lower electrode layer, said photo-resist layer patterned into a plurality of mushroom banks to define at least one pocket upon said lower electrode layer, the mushroom banks having a lower portion and an upper portion, where the lower portion is closer to the lower electrode layer than the upper portion and at least part of the upper portion is wider than at least part of the lower portion, the pocket completely surrounding and defining an active region of the pixel, so that the pixel is surrounded by the mushroom banks on all sides;

a plurality of polymer layers in the pocket; and

an upper electrode layer patterned above said polymer layers, said upper and lower electrode layers capable of conducting electrical energy to said polymer layers to cause at least one of said polymer layers to emit light.

- 2. (Previously Presented) A device according to claim 1 wherein said mushroom banks overhang a portion of the lower electrode layer.
- 3. (Previously Presented) A device according to claim 2 wherein said polymer layers include at least partially organic materials.

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4. (Previously Presented) A device according to claim 2 wherein said polymer layers include:

a conducting polymer layer which is capable of transporting electrical energy; and an emitting polymer layer for emitting light upon activation by said electrical energy,

- (Previously Presented) A device according to claim 4 wherein the emitting polymer is capable of emitting in one of white, red, green or blue.
- (Previously Presented) A device according to claim 5 wherein the configuration of the mushroom banks is selected according to the properties of the polymer layers.
- (Previously Presented) A device according to claim 1 wherein the configuration of said mushroom banks is trapezoidal.
- (Previously Presented) A device according to claim 1 wherein said polymer layers have a substantially flat and substantially uniform profile.
- (Previously Presented) A device according to claim 1 wherein the configuration of the mushroom banks is T-shaped.
- 10. (Previously Presented) A device according to claim 1 wherein the configuration of said mushroom banks is such that the walls of the mushroom banks are curved.
- (Previously Presented) A device according to claim 4 wherein said lower electrode layer is an anode layer and said upper electrode layer is a cathode layer.
- 12. (Previously Presented) A device according to claim 1 wherein the configuration of the mushroom banks includes a plurality of different shapes coalesced together.

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13. (Currently Amended) A method of fabricating an organic electronic device with at least one pixel, said method comprising:

patterning a lower conducting layer upon a substrate;

fabricating a photo-resist layer upon said lower electrode layer, said photo-resist layer patterned into a plurality of mushroom banks to define at least one pocket upon said lower electrode layer, each pocket surrounding and defining the active region of the pixel so that the pixel is surrounded by the mushroom banks on all sides, wherein the mushroom banks have a lower portion and an upper portion, where the lower portion is closer to the lower electrode layer than the upper portion and at least part of the lower portion is wider than at least part of the lower portion;

depositing at least one liquid substance into said pocket;

allowing said liquid substance to dry into polymer layers composed of organic material; and

forming a patterned upper electrode layer above said polymer layers, said upper and lower electrode layers capable of conducting electrical energy to to-said polymer layers to cause at least one of said polymer layers to emit light.

- 14. (Original) A method according to claim 13 wherein said mushroom banks overhang a portion of said lower conducting layer.
- (Original) A method according to claim 13 wherein said organic electronic device is an organic light emitting diode (OLED) display.
- 16. (Original) A method according to claim 15 wherein each said pocket defines a pixel of said display.

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17. (Original) A method according to claim 16 wherein said liquid substance includes an emissive polymer, said emissive polymer capable of emitting light upon application of electrical energy thereto, and said layers including an emissive polymer layer.

18. (Cancelled)

- 19. (Original) A method according to claim 17, wherein said at least one liquid substance includes a conducting polymer, the method further comprising allowing said conducting polymer substance to dry into a conducting polymer layer, said conducting polymer layer disposed upon said emissive polymer layer.
- 20. (Original) A method according to claim 13 wherein the configuration of said mushroom banks is trapezoidal.
- 21. (Original) A method according to claim 13 wherein said substance when dried has a substantially flat and substantially uniform profile.
- 22. (Original) A method according to claim 13 wherein the configuration of the mushroom banks is T-shaped.
- 23. (Original) A display according to claim 13 wherein the configuration of said mushroom banks is such that the walls of the mushroom banks are curved.
- 24. (Original) A method according to claim 13 wherein said fabricating the photo-resist layer including mushroom banks includes using lithographic processes.
- 25. (Original) A method according to claim 13 wherein the configuration of mushroom banks includes a plurality of different shapes coalesced together.

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26. (Previously Presented) An organic light emitting diode (OLED) device comprising at least one pixel, comprising:

a lower electrode layer;

one of said polymer layers to emit light.

a photo-resist layer, said photo-resist layer fabricated upon said lower electrode layer, said photo-resist layer patterned into a plurality of mushroom banks to define at least one pocket upon said lower electrode layer, the mushroom banks having a lower portion and an upper portion, where the lower portion is closer to the lower electrode layer than the upper portion and at least part of the upper portion is wider than at least part of the lower portion, the pocket completely surrounding and defining an active region of the pixel;

a plurality of polymer layers, wherein the wider part of the upper portion of the mushroom banks extends over an edge of at least one of the plurality of polymer layers; and an upper electrode layer patterned above said polymer layers, said upper and lower electrode layers capable of conducting electrical energy to said polymer layers to cause at least